

REMARKS

Reconsideration is respectfully requested.

To emphasize the patentable aspects of Applicant's invention, Applicant has characterized the parts as a vehicle or industrial boot or tube as referred to in claim 1. Applicant follows a continuous extruding process to produce a variety of shapes which are subsequently cut to form one or more vehicle or industrial boots or tubes that have planar end segments of differing geometry. As has been explained in the attached Declaration of Richard Ferrari, the automotive industry had prepared the vehicular boots on a unitary basis by generally a blow molding process. Substantial efficiencies are obtained by the currently claimed process.

The environment in which applicant proceeds can be express by the page of the *Automotive News* of April 2000 (Exhibit A) which shows a plastic boot that is utilized in a wheel steering system. The photograph is for illustrative purposes only. Applicant's invention has one portion of the boot or tube that is attached to a cross-member and the other portion is attached to a strut generally thinner than the cross-member with the flexible corrugated portion in between. Due to applicant's high speed molding techniques, applicant is able to produce boots in sufficient volume such as that required by the vehicular industry.

In contrast, representative of the prior art references is that taken from the website of the assignee of one of the cited references, U.S. Patent 4,509,911 to Rosenbaum. The assignee is Hancor. See Exhibit B attached. Please note that the size of the products are generally available in 20 feet in length on up to a coil of 2900 feet in length. Obviously this is a substantially different industry with different needs and different requirements than that called for in the present claims. Note that the picture on the left portion of the front page of the website indicates the civil engineering environmental use where the pipe acts as a duct underneath a road bed. This is similar to the drainage equipment disclosed in Maroschak, U.S. 3,859,025, in particular, column 1, line 32 and following and column 4, line 27 and following. It is respectfully submitted one working to solve problems in the automotive and industrial field would not look to the field of civil engineering and its molding techniques to produce the sizable pipes for that industry where water and agricultural waste may flow there through. The fields are substantially far afield.

With respect to paragraph 4 of the Office Action, claims 1, 4-5, 14, 17-18 and 21-22 are rejected under 35 USC 103 as being unpatentable over Maroschak in view of Lupke, U.S. Patent No. 5,429,398. This rejection is respectfully traversed. The Examiner takes the position that Maroschak teaches the claimed process for continuously molded corrugated parts making reference specifically to synchronize the cutter action to the movement of the shaped column, column 4, lines 46-53. It should be noted that Maroschak indicates in column 4, lines 52 and following that the final tube product has a substantial uniform number of ribs and valleys per unit length

thereof. It should also be pointed out that it is desirable to form a pipe having a length of approximate 10 feet and up as described in column 1, lines 38 and following. Note that if there is a desire to attach any of these pipes it is done manually. See Figures 6-8. It is respectfully submitted that Maroschak does not teach or disclose the claimed invention. Maroschak is concerned with obtaining very sizable pipes that can be manually put together. Note also that the manufacturing process of the '025 patent includes a blow molding process. See Figure 1. The process of the art therefore is not a continuous extrusion process as described and claimed in applicant's specification.

The Examiner recognizes the inadequacies of Maroschak for the Examiner combines Maroschak with Lupke, the '398 patent. It is respectfully submitted that there is no proper basis for combining the two references. Note that Lupke indicates in column 2, line 65 and following that the problem that Lupke was attempting to overcome was a long standing problem namely to provide an essentially smooth walled coupling portion in a traveling mold tunnel without affecting the quality of the resulting plastic. Lupke indicates further in column 3 how this was overcome; namely, the ribs are solid ribs having a thermoplastic material and the ribs being of a particular height at least as great as the wall thickness of the tube and also defined a groove for seating a sealing ring and the second end being belled sufficiently to fit over the first end of another tube.

As can be seen from the above, Lupke desires to produce a particular type of plastic structure where the ribs must have particular characteristics and that they are designed solely for purposes of joining another tube to them. This is shown for examples in Figures 4 and 5. Applicant on the other hand is not interested in joining one tube with the other as has been described in the Lupke specification but rather is interested in utilizing continuous extrusion high production techniques to produce a vehicle or industrial tube or boot. Note in particular that the different configurations of the boot during the manufacturing process called for in the dependent claims such as claims 5,6, 11 and the like are then cut to achieve the desirable end unit which is then utilized as a unit. Therefore, it is respectfully submitted that the processing techniques of Maroshack and the processing techniques of Lupke are specifically unique unto themselves and are not properly combinable. Both of the references are interested in having parts that can be coupled or can be very sizable in length contrasted to applicant's desired vehicle or industrial tube or boot. Accordingly therefore it is respectfully requested that the rejection be withdrawn.

In regards to paragraph 5 of the Office Action, claims 3, 6, 11-12, 15 and 19-20 are rejected under 35 USC 103 as being unpatentable over Maroschak in view of Lupke and in further view of Rosenbaum, U.S. 4,509,911. This rejection is respectfully traversed. Comments with respect to Maroschak and Lupke are outlined above.

Further, the Examiner notices that with respect to claim 3 Maroschak and Lupke are not sufficient to reject the claim. Rosenbaum is not properly combinable with the other two references. There is no suggestion for combining the references. Applicant

again points out that the assignee of the '911 patent is Hancor, a copy of whose website has been attached as Exhibit B. Please also note that the plastic pipe that is described in the '911 patent is used in waste disposal systems which are installed in the ground quite comparable to that which is shown in the website photographs. It is also to be noted that the '911 patent produces individual units which are then combined by hand to give coupled units. The product that is produced under the '911 patent is one that is designed to be unified together into a long structures. It is to be noted that the preferred manufacturing process of the '911 patent is a blow molding process as is depicted on page 4, line 56 and following. Applicant's invention on the other hand is directed towards a high throughput continuous process such as an extrusion process which can produce the vehicle or industrial boots or tubes so that they may compete effectively with blow molded parts. See the discussion in the Declaration of Mr. Ferrari. The primary purpose of the '911 patent is to join the parts prepared together in a long tubular fashion. Such is not the case with the boots or tubes of the present invention. See for example Exhibit A attached. The parts that are produced in the art are different and the processes for manufacturing those parts are correspondingly different than that claimed in the present case.

In paragraph 6 of the Office Action, claims 1, 4-5, 14, 17-19, and 21-22 are rejected under 35 USC 103 as unpatentable over Maroschak in view of Lupke and in further view of Kato U.S. Patent 6,051, 789. This rejection is respectfully traversed. Maroschak and Lupke have been discussed above. The Examiner makes reference to the abstract of Kato which indicates "in an automotive vehicle, a wire harness including

a wire bundle which is housed in and protected by a corrugated tube. . . Between the end sections and central region are transition regions of varying cross-sectional shape. When installed in a vehicle the central region of the wire harness tube is installed along the vehicle floor such that the projection perpendicular to the floor by the central region of the tube is reduced. . . The tube includes a resilient expansion slit which allows a wire bundle to be inserted in or removed from the tube." The specification indicates with respect to the formation of the apparatus of the '789 patent that the manufacturing process of blow-molding is utilized, see Figures 5a and 5 b as described in columns 3 and 4. As can be seen from the description, the blow molding operation of the '789 patent produces a wire harness that is of a fixed configuration. It is not a continuous extrusion process and there are no forms of multiple components that can be cut as desired at the end of applicant's extrusion process. It is submitted therefore, that Kato is not relevant to the present case and is not properly combinable with Maroschak and Lupke. Moreover, even if they were combined, the claimed continuous extrusion invention would not be taught.

With respect to paragraph 7 of the Office Action, claims 3, 6, 11-12, 15 and 19-20 are rejected under 35 USC 103(a) as being unpatentable over Maroschak in view of Lupke further in view of Kato and Rosenbaum. This rejection is respectfully traversed. Each of the references have been discussed above.

There is no proper basis for combining the references that the Examiner has done other than to pick and choose individual segments after seeing applicant's claims. The differences in Kato and Rosenbaum clearly are a proper basis for not combining them with the primary references. In particular Kato is directed toward a blow molding process. The rejection is a classic 20-20 hindsight rejection and is inappropriate.

As further evidence of the patentability of the present application, applicant includes the Declaration from Mr. Ferrari, attached. The Declaration supplies secondary evidence of a long felt need and commercial success. The blow molding process that has been utilized previously as referred to in Mr. Ferrari's Declaration is a process that needed improvement with high volume techniques. Applicant has been able to utilize a continuous extrusion process which permits the increased output and therefore makes for a competitively priced product. Please also note the substantial increase in sales in the United States for the products of the present invention.

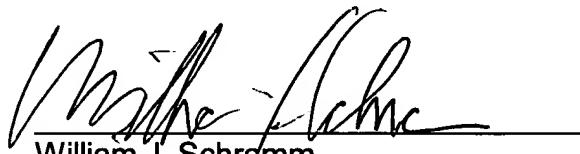
Quite simply, applicant in the real world has been able to devise a high volume process which is competitively marketed to the automotive and industrial industry. This has been accomplished by virtue of the manufacturing techniques as described and claimed in the present application. Such improvements and the value of such improvements is not suggested by the prior art, particularly blow molding techniques. Applicant's commercial success dictates patentability. *Graham v. John Deere* 383 US 1 (1966). Objective indicia are often the most probative and cogent evidence of non-obviousness. *Gambro Lundia AB v. Baxter Healthcare*, 110 F.3d 1573, 1579 (Fed. Cir.

1997).

In view of the above comments, it would appear that the case is in condition for allowance and a notification of allowance is respectfully requested.

Respectfully submitted,

REISING, ETHINGTON, BARNES, KISSELLE, P.C.



William J. Schramm
Registration No. 24,795
P.O. Box 4390
Troy, Michigan 48099
(248) 689-3500
(248) 689-4071

Date: 10/14/03

Enclosures